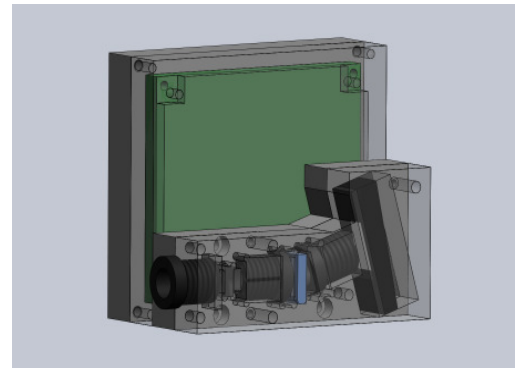


## SpectralEye\_DSP\_Micro

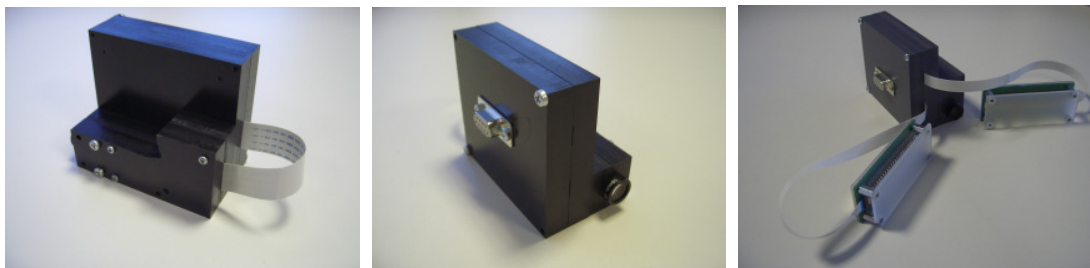
Light curtains are frequently used for safety means in automation. The sensor introduced here provides object recognition and an additional material identification. Thus the sensor can selectively accept or reject materials. It is possible therefore to let certain products pass the light curtain, while others are rejected. It can either be installed as a free-standing device or combined with a conveying system or as a recognition system for "good" or "bad" objects passing through.

The sensor exhibits an integrated 2D VNIR spectrometer system for analysis, control and evaluation electronics (DSP and microcontroller) and can be completed with a LED illumination.

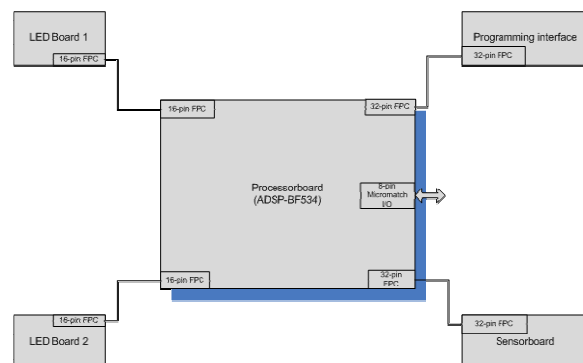
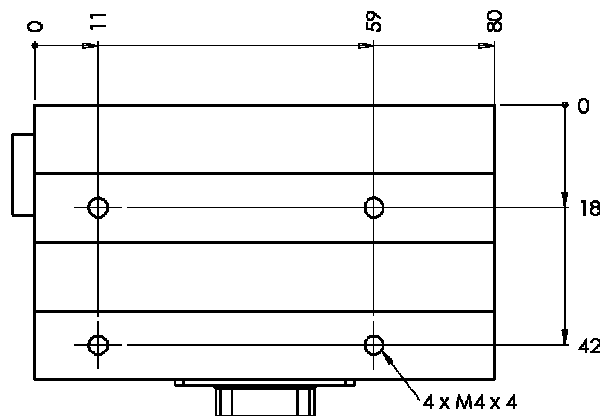


### Features:

- Easy installation and start-up
- No moving components, thus insensitive to shocks and vibrations
- Durable by use of LED illumination
- Identifies diverse plastics
- Identifies diverse organic chemical compounds
- Identification takes less than a second
- Signal output via parameterisable outputs



### Mechanical dimensions:



## Specifications

SpectralEye_DSP_Micro	
<b>Optical and spectral characteristics</b>	
Sensor	1 MPix CMOS camera sensor
Spectral range	830nm- 960 nm, other configurations on request
Entrance objective	f = 16 mm (M12 x 0,5 mounting thread), other focal lengths on request
Illumination	LED illumination unit (wavelengths: 750 ... 970nm) other wavelengths on request
<b>Mechanical characteristics</b>	
Dimensions sensor unit	80 x 55 x 70(LxWxH in mm)
Dimensions illumination	74 x 31 x 11 (LxWxH in mm)
Material	ABS, black
Weight	350g
<b>Electrical characteristics</b>	
Outputs	Pin 1: material 1 detected, pin 2:: material 2 detected, pin 3: object in light path
Inputs	2 inputs optional
Specifications outputs	Optocoupler TTL 5V
Processor	Analogue devices DSP
Power supply	24 V DC
Power consumption	Max. 20W (2A)
<b>Operational conditions</b>	
Temperature (operating)	-10 ... +40 °C, non-condensing
Temperature (shipping)	-20 ... +65 °C, non-condensing
Humidity	20%-85% non-condensing
IP code	IP54
Warranty	2 years

## Electronical connection plan:

9-pin Sub-D connector

Pin assignment	
Pin	assignment
1	+12V Input voltage
2	Ground
3	Output 1
4	Output 2
5	Output 3
6	Output 4
7	Output 5
8	Output 6
9	Ground

